
PODCASTING

SPRING 2007



PODCASTING CONCEPTS

■ RSS

- ❑ Specifies a means of describing news or other Web content that is available for "feeding" (distribution) from an online publisher to Web users.



■ Podcast

- ❑ Media file that is distributed over the Internet using syndication feeds, for playback on portable media players and personal computers.
- ❑ A podcast can be easily created from a digital audio file.
- ❑ These files may then be uploaded to digital music or multimedia players like the iPod.

■ Podcasting

- ❑ Preparation and distribution of audio files using RSS to the computers of subscribed users.
- ❑ Allows personal computer to automatically download audio files onto an mp3 player at any time.



PODCASTING CONCEPTS



- **XML (eXtensible Markup Language)**
 - Language that can be used on the World Wide Web, to create a tagging scheme that allows elements of a document to be marked according to their content rather than their format.
- **Content Aggregator**
 - Individual or organization that gathers Web content (and/or sometimes applications) from different online sources for reuse or resale.
 - There are two kinds of content aggregators:
 - Those who simply gather material from various sources for their Web sites, and
 - Those who gather and distribute content to suit their customer's needs.
 - The latter process is called syndication, which is the supply of material for reuse and integration with other material, often through a paid service subscription.
 - ScreamingMedia, Moreover, and iSyndicate are among the increasing number of companies offering aggregated content for resale.
- **iPOD**
 - **iPod** is a brand of portable media players designed and marketed by Apple and launched in 2001.
 - The full-sized model stores media on an internal hard drive, while the smaller iPod nano and iPod shuffle use flash memory.

HOW IS PODCASTING DONE?

- These basic steps for podcasting are:
 1. The podcaster first saves the file as an MP3 and then uploads it to the Web site of a service provider.
 2. The MP3 file gets its own URL, which is inserted into an RSS XML document as an *enclosure* within an XML tag:
 3. Once a podcast has been created, it can be registered with content aggregators, such as podcasting.net or ipodder.org, for inclusion in podcast directories.
 4. People can browse through the categories or subscribe to specific podcast RSS feeds which will download to their audio players automatically when they next connect.
- Although podcasts are generally audio files created for digital music players, the same technology can be used to prepare and transmit images, text, and video to any capable device.

CREATING A MEDIA FILE

- The first stage in podcasting is creating an audio file.
- In order to create own content, users require:
 - Software that records audio and saves it in MP3 format.
 - Microphone and speakers/headphones.
- This software can either be purchased or downloaded as freeware.
- Among all the freeware, **Audacity** is a software to create record audio files and save them as MP3s.



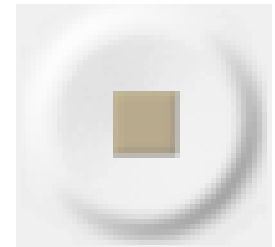
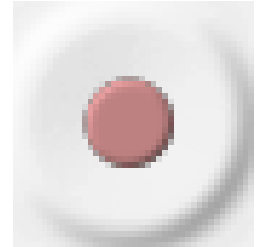
USING AUDACITY

- This software can be downloaded from <http://sourceforge.net/projects/audacity/>
- It supports Linux, Windows (98, XP, Vista), MacOS, and BSD operating systems.
- It supports the following audio formats:
 - ❑ MP3
 - ❑ WAV
 - ❑ AIFF
 - ❑ Ogg
- Among its features, it includes:
 - ❑ Envelope editing
 - ❑ Mixing
 - ❑ Built-in effects
 - ❑ Plug-ins



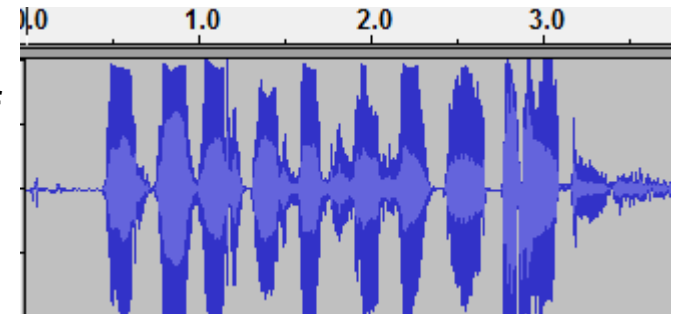
RECORDING AUDIO

1. Make sure that the microphone is connected to the microphone computer's port.
2. Click the record button.
3. Start speaking with the microphone.
4. To finish recording, click the stop button.



LISTENING TO THE RECORDING

- **Complete Playback:**
 - ❑ Click the play button. The recording by default plays from the beginning.
- **Playback the sound from a specific section** (different beginning, same ending):
 - ❑ Move the mouse pointer over a section of the graphic that represents the sound file.
 - ❑ Click on that spot. A vertical line is drawn to show the location where the playback will start from.
- **Playback of a smaller section** (different beginning and ending)
 - ❑ Move the mouse pointer over a section of the graphic that represents the sound file.
 - ❑ Click and drag the mouse until the desired area is shaded. This is the area that will be played back.



PRACTICE #1

1. Run the **Audacity** software,
2. Record a 20 second brief introductory message and mention the main topic that will be explained during the week.
3. Listen to the entire playback.



SAVING PROJECT FILES



- It is not mandatory to do so when creating a podcast.
- However, if you want to manage several audio tracks separately, then it is a must do.
- Follow these steps:
 1. Click **File**.
 2. Click **Save Project As** The Save Project As dialog box appears.
 3. Type the name for your project file in the **File Name** dialog box.
 4. Click **Browse** to select a location where to save your project file.
 5. Click the **Save** button.

PRACTICE #2

1. Save your recording as a Project file called **<Your initials>Introduction.**
 - For example, if your name is Jon Smith, then your project name would be **JSIntroduction.**



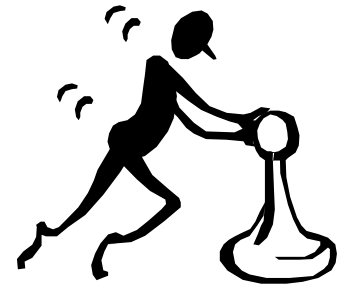
MAGNIFYING A SEGMENT



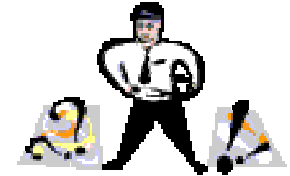
- Usually, the sound wave that gets displayed looks relatively small and it can make it difficult to locate a specific point in the recording.
- In such cases, it is advisable to zoom in the sound wave which visually expands it for easy later editing.
- Follow these steps:
 1. Go to the **View** menu and then click **Zoom In**. This expands the entire sound wave.
 2. Zoom in as many times as necessary.
- Another possibility is to expand only a section of the sound wave by clicking **Zoom to Selection** (same menu).

MOVING TO THE START OF THE TRACK

- Make sure that you are at the very beginning of the audio track, before playback.
- Follow these steps:
 1. Go to the **Edit** menu.
 2. Click **Move Cursor**.
 3. Click **to Start Track**.



EDITING A RECORDING



- There are many problems associated with recording that can creep into the file such as: background noise, coughing, clearing your throat, etc.
- In such cases, it is desirable to eliminate these spots of our recording.
- Depending in how it was originally recorded, it is possible to make these corrections without having to re-record the troublesome segment.
- Follow these steps:
 1. Locate the segment of the recording that needs to be eliminated. You may need to use the zoom in option to help you find it faster.
 2. Highlight the desired segment.
 3. Go to the **Edit** menu and then click **Delete** to delete the segment (It will not go to the clipboard).

PRACTICE #3

1. Find a segment that you want to delete and do so.
2. Re-save your project.



EDITING A RECORDING



- A segment of a recording can be moved, copied and pasted to a different section.
- ***Moving a segment to another location of the track***
 - Follow these steps:
 1. Locate the segment of the recording that needs to be moved. You may need to use the zoom in option to help you find it faster.
 2. Highlight the desired segment.
 3. Go to the **Edit** menu and then click **Cut** to take out the segment (It will go to the clipboard).
 4. Click at the location where you want to paste the new segment.
 5. Go to the **Edit** menu and then click **Paste**.

EDITING A RECORDING



- ***Copying a segment to another location of the track***
 - Follow these steps:
 1. Locate the segment of the recording that needs to be moved. You may need to use the zoom in option to help you find it faster.
 2. Highlight the desired segment.
 3. Go to the **Edit** menu and then click **Copy** to take out the segment (It will go to the clipboard).
 4. Click at the location where you want to paste the new segment.
 5. Go to the **Edit** menu and then click **Paste**.

WHITE NOISE / TONE



- We can apply “white noise” or tone sounds to enhance our podcast.
- Follow these steps:
 1. Locate the segment of the recording that needs to be added the effect, or you can add it at the beginning or the end of the track. You may need to use the zoom in option to help you find it faster.
 2. Highlight the desired segment (if any).
 3. Go to the **Generate** menu and then click **White Noise** to add white noise, or **Tone** to add a tone sound respectively.

PRACTICE #4

1. Add a 5 seconds white noise segment at the beginning of your podcast.
2. Add a 2 seconds tone sound after the white noise, but before your recording.



ADDING SILENCE



- Silence can create pauses between audio commentary.
- Sometimes we want to add these to create “spaces” while discussing two different topics.
- Follow these steps:
 1. Locate the segment of the recording that needs to be silenced, or you can add silence at the beginning or the end of the track. You may need to use the zoom in option to help you find it faster.
 2. Highlight the desired segment (if any).
 3. Go to the **Generate** menu and then click **Silence** to take out the segment.

PRACTICE #5

1. Insert a silent segment at after the tone sound, but before your recording.
2. Insert a silent segment after the end of the recording.
3. Re-save your project.



GET YOUR MUSIC INTO AUDACITY



- Music can be imported into Audacity.
- This could be an audio file like an MP3 that you already have on your computer.
- Follow these steps:
 1. Click **Project** and then click **Import Audio**. The **select one or more audio files** window appears.
 2. Browse until you find the MP3 file that you are looking for.
 3. Select and open the file.

PRACTICE #6

1. Import the MP3 file located in the class wiki.
2. Re-save your project.



CREATING A SEPARATE AUDIO TRACK



- You can create your voice track which you do by recording it with your microphone on to a new track in your Audacity Project.
- As the voice recording will be on a different track from the music, it can after recording be edited entirely independently of the music.
- By clicking the record button, a new track is generated. If a music or another sound file already exists within the project, a new separate track is created.
- You can edit a track without affecting the others.

CREATING A SEPARATE AUDIO TRACK



- Audacity has the handy ability to allow you to record your voice track while listening to another track.
 - For example if you have background music, you can dream up what to say as the mood of the music takes you and have your voice laid down in the same place as the music.
- Follow these steps
 1. Click **Preferences** in the **Edit** menu. **Import Audio**. The **select one or more audio files** window appears.
 2. In the **Audio I/O** tab, click the checkbox **Play other tracks while recording new one**.
 3. Record.
- Note: Use tight fitting headphones to record while listening to a music track, to avoid your microphone picking up the music playback in your voice recording (applies to other audio as well).

ADDING SOME EFFECTS



■ ***Amplifying the Audio***

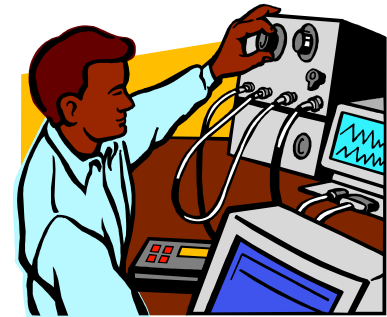
- ❑ If your recording is too low, you might want to amplify the output.
- ❑ Follow these steps:
 1. Select the track that you want to amplify. If you don't want to select the entire track, highlight the section of the track that you wish to amplify.
 2. In the **Effect** menu, click **Amplify**. The amplify window opens.
 3. Enter the number of decibels for the amplification, or leave the default value.
 4. Click **OK**
- ❑ Note: If the sound became distorted, then move the track volume slider to the left until it plays back better.

PRACTICE #7

1. Amplify your recording.
2. Decrease the volume of the music to a level which doesn't interfere with your lecture.
3. Re-save your project.



ADDING SOME EFFECTS



■ ***Fading In/Out***

- ❑ Fades in or fades out the selection linearly.
- ❑ Follow these steps:
 1. Select the segment that you want to fade.
 2. In the **Effect** menu, click **Fade In** or **Fade Out**. The sound wave's segment will be modified accordingly.

■ ***Changing Pitch***

- ❑ Increases or Decreases the audio pitch
- ❑ Follow these steps:
 1. Select the segment that you want to change its pitch.
 2. In the **Effect** menu, click **Change Pitch**. The **Change Pitch** window appears.
 3. Select up or down whether you want to increase or decrease the pitch respectively.
 4. Select a pitch from a music scale.
 5. Click **OK**.

PRACTICE #8

1. Do a fade-in effect for the white noise at the beginning of the audio track.
2. Do a fade-out effect to the tone section before the silence.
3. Adjust the pitch of the audio if you are not satisfied with it. If you don't like the changes, go to Edit, and click Undo.
4. Re-save your project.



CREATING AN MP3 FILE



- The next major step in creating a podcast is to save your audio in MP3 format.
 1. Click **File**.
 2. Click **Export As MP3...** The Save MP3 File As dialog box appears.
 3. Type the name for your audio file in the **File Name** dialog box.
 4. Click **Browse** to select a location where to save your audio file.
 5. Click the **Save** button.
 - It will not save the file if the LAME MP3 Encoder is not previously installed in your computer.
 - This encoder can be downloaded from here:
 - <http://lame.sourceforge.net/download.php>
 - Instructions of how to install it can be found here:
 - <http://audacity.sourceforge.net/help/faq?s=install&item=lame-mp3>

CREATING AN MP3 FILE



6. After clicking the **Save** button and the encoder is present, then the **Edit the ID3 tags for the MP3 file** dialog box appears.
7. Select either ID3v2 (more flexible) or ID3v1 (more compatible).
8. Enter the other information as you see fit.
9. Click **OK**.

PRACTICE #9

1. Save your recording as an MP3 file called **<Your initials>_Elegant_Introduction.**
 - For example, if your name is Jon Smith, then your MP3 name would be **JS_Elegant_Introduction.**



EXPORTING A SELECTION



- Sometimes you want to take only a section on an entire podcast and save it as a separate file.
- This can be done by exporting the selection as an MP3 file.
- Follow these steps:
 1. Highlight the desired segment.
 2. Go to the **File** menu and then click **Export Selection as MP3**. The Save As MP3 file window appears.
 3. Enter a name for the new file.
 4. Click **Browse** to select a location where to save your audio file.
 5. Click the **Save** button.

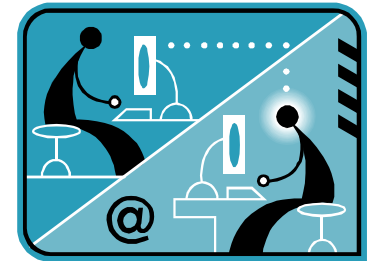
PRACTICE #10

1. Export only your audio recording as
<your initials>**No_Music_Introduction**
2. Re-save your project.



PUBLISHING YOUR PODCAST

- You can post your work on the Internet to make it available to a larger audience.
- Once that your MP3 has been exported to your hard drive (or any permanent storage unit), upload it to your website and create a link for it.
- You can create a simple download link which is just the web address of the file e.g. <http://www.mypodcast.com/podcast.mp3>.



PUBLISHING YOUR PODCAST



- On the other hand if you embed your MP3 in your webpage using "embed tags" you can choose if your MP3 plays in the background or if the browser's media plugin appears in the webpage, which will give the user an on and off button to play the file in the browser.
- You can also choose whether to autoplay the file on page load or not, and so on.
- Some knowledge of HTML might be needed.

PRACTICE #11

1. Post your no music introduction clip in the class wiki.
2. Create a 5 to 10 minute podcast about a particular topic, as a lecture, class review for midterm, or anything else you can think of. Save it as a project.
3. Edit it to fix any problems and when you are satisfied export it as an MP3.

